

## EXTRACTIONS

When it comes to dental procedures, tooth extraction — or having teeth "pulled" — is among patients' most dreaded prospects. Also referred to as exodontia, tooth extraction involves removing a tooth from its socket in the jaw bone. Before your dentist considers extraction, every effort will be made to try to repair and restore your tooth. However, sometimes a tooth extraction is necessary.

### Reasons for Tooth Extraction

There are several reasons for extracting a tooth. These include:

- **Severe Tooth Damage/Trauma:** Some teeth have such extensive decay and damage (broken or cracked) that repair is not possible. For example, teeth affected by advanced gum (periodontal) disease may need to be pulled. As gum disease worsens, the tooth — supported by less surrounding bone — often loosens to such an extent that tooth extraction is the only solution.
- **Malpositioned/Nonfunctioning Teeth:** To avoid possible complications that may result in an eventual, negative impact on oral health, your dentist may recommend removing teeth that are malaligned and/or essentially useless (teeth that have no opposing teeth to bite against).
- **Orthodontic Treatment:** Orthodontic treatment, such as braces, may require tooth extraction to make needed space for improved teeth alignment.
- **Extra Teeth:** Also referred to as supernumerary teeth, extra teeth may block other teeth from erupting.
- **Radiation:** Head and neck radiation therapy may require the extraction of teeth in the field of radiation in order to help avoid possible complications, such as infection.
- **Chemotherapy:** Chemotherapy weakens the immune system, increasing the risk of tooth infections, heightening the risk of extraction.
- **Organ Transplant:** Immunosuppressive medications prescribed after organ transplantation can increase the likelihood of tooth infection. As such, some teeth require removal prior to an organ transplant.

### Commonly Extracted Teeth

Wisdom teeth removal is one of the more common categories of tooth extraction. Many dental professionals will recommend removing wisdom teeth (third molars) before they are fully developed — usually in the adolescent years — to help eliminate potential problems. One problem that could occur is development of an impacted tooth that has surfaced and has no room in the mouth to grow. Other problems associated with impacted teeth include infection, decay of adjacent teeth, bite interference and gum disease.

Extractions of some permanent teeth that have not erupted — such as the canines,

which are also known as fangs or eye teeth — may be required in order to make space for orthodontic treatment.

## Types of Tooth Extractions

There are two types of tooth extractions:

- **Simple Extractions:** These are performed on teeth that are visible in the mouth. General dentists commonly do simple extractions, and most are usually done under a local anesthetic, with or without anti-anxiety medications or sedation.
- **Surgical Extractions:** These involve teeth that cannot easily be seen or reached in the mouth, either because they have broken off at the gum line or they have not fully erupted. Performed by dentists or oral surgeons, surgical extractions require some type of surgical procedure, such as bone removal, removing and/or lifting and folding back all or part of the gum tissue to expose the tooth, or breaking the tooth into pieces (called tooth sectioning). Surgical extractions can be done with local anesthesia and/or conscious sedation. Patients with special medical conditions and young children may receive general anesthesia.

## Preparing for Your Tooth Extraction

Prior to a tooth extraction, your dentist or oral surgeon will discuss your medical and dental histories and take X-rays. Some dental professionals will prescribe antibiotics to be taken before and after surgery. Antibiotics are more likely to be given to patients with infection or weakened immune systems at the time of surgery, those undergoing longer surgeries, or young or elderly people.

To avoid possible complications, inform your dentist about all the medications — prescriptions, over-the-counter (OTC) and herbal — you are taking. For example, aspirin slows the blood-clotting process; ginkgo biloba and ginseng also affect clotting.

Many people like to be sedated for a tooth extraction. Possible sedation dentistry options include nitrous oxide ("laughing gas"), an oral sedative (such as a Valium pill) or an intravenous sedative that is administered into your veins by injection. If you opt for nitrous oxide, you can drive yourself home. If you choose one of the other types of sedation, you will need someone to drive you to and from your dental visit.

## What to Expect During a Tooth Extraction

At the extraction appointment, your dentist will numb, or anesthetize, the tooth to be extracted, as well as the jawbone and gums surrounding it. Typically, a local anesthetic such as novocaine or lidocaine is injected to eliminate discomfort.

**Simple Extraction:** Your dentist will grasp the tooth with specialized pliers called extraction forceps and move them back and forth to loosen the tooth before removing

it. Sometimes, a surgical cutting instrument called a luxator — which fits between the tooth and the gum — is used to help loosen the tooth. Dentists also use "elevators," which are levers that look similar to small screwdrivers. Usually a dentist will first use an elevator to wedge between the tooth and the surrounding bone. The elevator places pressure on the tooth, which helps to expand the tooth's socket and separate its ligament.

**Surgical Extractions:** These procedures generally are more complicated. Greater surgical effort may be needed. For instance, gum and/or bone tissue may cover or surround a tooth in a way that makes it difficult for your dentist to view and/or access it. If so, your dentist will need to cut and lift back or remove this tissue. Sometimes a tooth is so firmly anchored in its socket that your dentist must cut the tooth into pieces in order to remove each portion individually.

Your dentist may need to place stitches and/or add bone (natural or synthetic) in the extraction site after the procedure. Some stitches are absorbable and will disintegrate on their own; others require removal by your dentist, usually about a week after the extraction.

### Modern Tooth Extraction

While surgical cutting instruments like scalpels and dental drills are still commonly used in surgical extractions, the use of dental lasers and electrosurgery in such procedures is growing.

Lasers use high-energy light beams to cut, while electrosurgery uses controlled heat to cut. Benefits of laser surgery and electrosurgery as an aid in tooth extraction compared to traditional scalpels and dental drills include greater precision, less chance of damage to adjacent structures, less bleeding and discomfort, and quicker healing time. However, the disadvantages of their use include higher costs, the smell of burning flesh during the procedure, and the inability to use them to directly extract teeth.

### Tooth Extraction Aftercare

Since bleeding is normal after an extraction, your dentist will have you bite on a piece of gauze for about 45 minutes to put pressure on the area and allow the blood to clot. Some swelling and discomfort are normal after a tooth extraction.

Cold compresses or ice packs can help decrease the swelling. If your jaw is sore and stiff after the swelling dissipates, apply warm compresses. Sleeping with your head face upward to relieve pressure on the jaw, and keeping your head elevated with extra pillows also may help. In addition, your dentist may recommend you take an OTC pain. With surgical extractions — which generally cause more pain afterwards — your dentist may prescribe a prescription pain medication.

Other aftercare tips include:

- Do not rinse your mouth for the first 24 hours immediately following a tooth

extraction.

- Stick to a soft or liquid diet (milk, ice cream, mashed potatoes, pudding) the day of and the day after a tooth extraction, gradually progressing to eating other easy-to-chew foods. Chew with teeth that are far from the extraction site.
- Brush and floss the other teeth as usual, but avoid the teeth and gum next to the extraction socket.
- After the first 24 hours, for at least five days after extraction, gently rinse the socket with warm salt water (1/2 teaspoon of salt in a cup of water) after meals and before bed.

### **Things to Avoid After Tooth Extraction**

In addition to the aforementioned aftercare considerations, tooth extraction aftercare also involves avoiding certain foods and activities.

- Avoid anything that might dislodge the blood clot and delay or prevent normal healing.
- Do not smoke, vigorously rinse or spit, engage in strenuous activities, or drink through a straw for at least two days after an extraction.
- Stay away from hot liquids, foods that are crunchy or contain seeds or small grains, alcohol, and carbonated soft drinks for two to three days after tooth extractions.
- Do not brush your gums or use an OTC mouth rinse (you can use homemade water-and-salt washes).

### **Possible Tooth Extraction Complications**

There are several potential complications that may occur as a result of a tooth extraction. These complications may include:

- Accidental damage to adjacent teeth.
- Incomplete extraction, in which a tooth root remains in the jaw. Your dentist usually removes the root to prevent infection, but sometimes it's less risky to leave in a small root tip.
- Alignment problems associated with chewing ability or jaw joint function. Misaligned teeth may cause pain, teeth grinding (bruxism) and cracking or splintering of teeth withstanding the force of the jaw. Additionally, misaligned teeth can trap food and be harder to clean, thereby increasing the risk for tooth decay

and gum disease.

- Fractured jaw (most often occurring in older people with osteoporosis of the jaw) caused by the pressure put on the jaw during extraction.
- If an upper tooth was extracted, a hole may have been made into one of the sinus areas. Normally, it will heal quickly on its own; but if it doesn't, you may need to return to your dentist.
- Infection, while rare, does occasionally occur. Your dentist may prescribe antibiotics before and after the extraction if determined you may be at risk of infection.
- Nerve injury — while primarily an issue with extractions of lower wisdom teeth — can occur with the removal of any tooth if the nerve is near the extraction site. Typically caused by damage from a surgical drill, nerve injuries are rare and usually temporary.
- Bisphosphonates — drugs used to prevent/treat osteoporosis, multiple myeloma, bone cancer and bone metastasis from other cancers — may put patients who undergo tooth extractions at risk for developing osteonecrosis of the jaw (a rotting of the jaw bones). It is thought that bisphosphonates attack the teeth and bone, and may prevent cells that break down bone from working. If you are taking an osteoporosis medication such as Fosamax, try to avoid extraction whenever possible, rather than opt for removal of the tooth/teeth.
- Without an opposing tooth, the tooth above or below the extraction socket will, over time, move out of its socket, likely exposing its roots and becoming sensitive to temperature changes. Particularly when several teeth have been extracted, another possible long-term problem is thinning of the jawbone, which then becomes easier to break.
- Tooth extractions — particularly of front teeth — may negatively affect your appearance.

Unless it is a wisdom tooth, your dentist likely will advise replacing any extracted tooth to avoid possible complications, such as shifting of the teeth, gum recession and bone loss. Dental implants are the ideal tooth replacement; dental bridges and dentures are other options.

### **Dry Socket**

Dry socket, a common complication after a tooth extraction, occurs when a blood clot has failed to form in the socket, or the blood clot that did form has been dislodged. This leaves the underlying bone and nerves exposed to air and food. Often quite painful, dry socket typically appears two to five days after extraction and can cause a

bad odor or taste.

Dry socket is most frequently associated with difficult or traumatic tooth extractions, such as the extraction of lower wisdom teeth. It occurs more often with people over the age of 30, smokers, those with poor oral hygiene habits and women (particularly those taking oral contraceptives). Unless there is an emergency, experts recommend that women using oral contraceptives schedule their extractions during the last week of their menstrual cycle, when estrogen levels are lower.

In most cases, if you develop dry socket, your dentist will place a medicated dressing into the socket to soothe the pain and encourage healing. The dressing is replaced every 24 hours until the symptoms of dry socket lessen (about five to seven days).

### **Healing Time for Tooth Extractions**

Healing from a tooth extraction takes about five to seven days. The gum area should be fully healed in three to four weeks. If the jaw is damaged during tooth extraction, full healing may take up to six months.

### **Cost of Tooth Extractions**

Generally, the harder the tooth is to remove, the more the procedure costs. Tooth extraction costs range from approximately R300- R800.